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<120> IgA NEPHROPATHY-ASSOCIATED GENE

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<140> US 09/730,559
<141> 2000-12-07

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<211> 155
<212> DNA
<213> Homo sapiens

<400> 8
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cgctcctta gtcactcttc ctataccaat ctgagaccat ttacaattt agaaaagaca 120

aataactggt tgggttactt gatagtataa taacc 155

<210> 9
<211> 278
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (29), (32), (35)
<223> A or G or C or T

<400> 9
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ggggaagaga cattaatta tcttgatact accattgact tgtctcacct tcaaccccaa 120

aggtccatcc agaaattggc ttcaaaagag gaatcttcta attctagtga cagtaaatca 180

cagagccgga gacatttgtc agccaaggaa agaagggaaa tgaaaaagaa aaaacttcca 240

agtgactcag gagatttaga agcgtagag ggaaagga 278

<210> 10
<211> 135
<212> DNA
<213> Homo sapiens

<400> 10
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 ctggactaaa taagc 135

<210> 11
 <211> 197
 <212> DNA
 <213> Homo sapiens

<400> 11
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 ggaatttttg gttgtgggtc tgttatcact agaaaaatat atatattggt gctgaagata 120
 attttgagat aattagacaa gacagtttag catttacaag aacaagtttg gcagttgaag 180
 aatctattta tatgact 197

<210> 12
 <211> 137
 <212> DNA
 <213> Homo sapiens

<400> 12
 ccaccgcacc tggctgatgc ttttctatct gacttctttc agaggaccct gaaagacact 60
 aagtggaatc tttccttgaa gtcttccaag ctaaaacaat tctctggaaa gatcacctct 120
 gttcagtcct ggtctct 137

<210> 13
<211> 274
<212> DNA
<213> Homo sapiens

<400> 13
cgtttacaga ttctcttgcg gctggcggtg gaactacaaa gggatcgggtg cctatatcac 60

aataccaaac ttgataataa tctagattct gtgtytctgc ttatagacca tgtttgtagt 120

aggtaagagg aaaacttcct atattctgaa acagcctaac attttacaaa attttagttt 180

tcttttttag agtcttatcc tgtagctata taacagttca tgtctgattt agcatttggt 240

cacgagtaaa gctggaacta tgaaaattga aaat 274

<210> 14
<211> 171
<212> DNA
<213> Homo sapiens

<220>
<221> unsure
<222> (72), (127), (150)
<223> A or G or C or T

<400> 14
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cgagtcacct angttcttac aaaggaagcg agaaaattgc ttttgttggg ccattgccct 120

tttgcanagg ttcctaagta tagtcgccan aatTTTTTTT atggcctaaa g 171

<210> 15
<211> 161
<212> DNA

<213> Homo sapiens

<400> 15

aggggcgctt gttctgctct cagcagattg gttacacgcg tcaggtggtg gcgatgactt 60

aattcctagc ccaagaagaa tataatgtta aaactgggta tgtaattttt gtgcctctcc 120

ttttaatgc agtatttagt tcagatggtg gcgatttttc a 161

<210> 16

<211> 323

<212> DNA

<213> Homo sapiens

<400> 16

tataaggwgg gaaccttact atctctaata accttactga tgctgacttt aatactctgt 60

gaagggttaga gttcagtgaa tgttacctag aaacagcccc ggctgtggaa tactttattc 120

ttagccctat atttgggggtt tggatgtcca ctgtgctggt tcccagagat agtaagggga 180

tgagagtatt gggtacatct cctgaccac atacttaaga tccagatgaa caagacagtt 240

ttcactcctg cttggtagaa cctatttgyk shaggaaaca gytccaaag aatgggttcta 300

gccagaccct gtcgytacca gaa 323

<210> 17

<211> 138

<212> DNA

<213> Homo sapiens

<400> 17

agtatgacaa atagtttctg cctgattggt gagatttggg atgggcccc actttgtttc 60

tctttctgca taaaaatttc aacattttta caaaattttc aaaaacttct cctcagtctg 120

tacatctttg ttaatcag 138

<210> 18

<211> 135

<212> DNA

<213> Homo sapiens

<400> 18

tgatccccac aatttcttgt gattggtgag gaactataaa tgactcccat ccaagcttat 60

accagaaaaa aggagcacat tttctacaaa ttatatcatt tttaatccat taccacatta 120

ttttagggga actac 135

<210> 19

<211> 219

<212> DNA

<213> Homo sapiens

<400> 19

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ataagtacac ctgctcgaag tgttcaccta tattatttaa gaacaagcaa ctgtaaaaca 120

gtaaaatcac aaaaggtaag ttggtggaag acaacaaaaa agaattacta tatctgatcc 180

tgcggtgttta ttttagaatc tgttaatagg cctacagct 219

<210> 20

<211> 191

<212> DNA

<213> Homo sapiens

<400> 20
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 gtccctggac agaaactctt cagcaggcct tgaagttag ttcaggggct acatggaata 120
 ccactattta gcacacaggt gtgatctgag gtgagggact accttttcga tcttggtttt 180
 ctcatttatt t 191

<210> 21
 <211> 148
 <212> DNA
 <213> Homo sapiens

<400> 21
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 ctcccaagaa caccaaagca gatgatgagt ctagtcttac ccagccttcc tccccacgaa 120
 tccagatcat agtaagaaac tctgggct 148

<210> 22
 <211> 306
 <212> DNA
 <213> Homo sapiens

<400> 22
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 gcttcaatca caaatacgac tgcttaaaac cgcagaaatt tcctcaacac tcagccttta 120
 tcactcagct ggattttttt cttcaacaat cactactcca agcattgggg aacacaactt 180
 ttaatcatac tccagtcgtt tcacaatgca ttctaatagc agcgggatca gaacagtact 240

gcatttactt gccaacagaa cagacagacc tgaagtcaag acaactgcat tctctgtgaa 300

gtctgt 306

<210> 23

<211> 357

<212> DNA

<213> Homo sapiens

<400> 23

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ccagattatt gagcrgccca atgaatgctt cattotcatt gtttaagggtg ctgctttgat 120

ttttttttca attctttgta ctatttttta ttttttggag aggcacatcc ccaaatttgg 180

atgaggtatt tgttgataaa taattcatca atttccacaa tgcagacaaa aatgtctgcc 240

cagagtggaa aaataaaaca agggggagaa gagtttgagt aacggagaag ttctgtggaa 300

tcctagtgac aaaagttgag aaactacctt taaataagac agtgaggtaa caaatgt 357

<210> 24

<211> 219

<212> DNA

<213> Homo sapiens

<400> 24

tggaatagcc aggagaattc tggaaaagta gaataatgag gtagggcttc ccttcgctat 60

tttgaagtgc agattacact atgtaaaacc attaggaact ggcacgtgaa tagacagatc 120

aatagttaat agctgtatta gccagaaaat ggtgtaagga caacaggcta actaaccctg 180

tcacttgтта tgctaaaatt aagtctagat agagtcctc 219

<210> 25

<211> 251

<212> DNA

<213> Homo sapiens

<400> 25

tgaaagggga atagaagcac aagagtcagt aatcaataac aaacaactca aggtgctcct 60

tccttacact ggtgttcccc aaagtgaggt gaattgccag cactgggag tcagggccag 120

ttacataaga cattctcggт aagccccctt tgggtatccc aaataaggac tggggтgggt 180

ttatgtgtag tccattatta acaactaaac gaacaaacct agtgaattgc aataaattca 240

caccaacaga a 251

<210> 26

<211> 233

<212> DNA

<213> Homo sapiens

<400> 26

gttgaaagag tccttggaag gcttttagac caaaccctc tgcатgctca arccttgggt 60

acaggatttc таагаagtgg aacagtctcc aggggtgtgg arctcatcgc tcaaggcagg 120

ttatcttatc tgaataattt tgtctgttga ctattgggat agttctcctt cagatgagct 180

gaaattttct ccatagcttc ctctattaaa cccaattcca cttctcaggg tca 233

<210> 27
<211> 176
<212> DNA
<213> Homo sapiens

<400> 27
caaaagcgct gaagttaagc attaatacgc cagattcatg atttatgatc agtatccaaa 60

actccaacta caaacaatgc aaagtagtgc tcctcagtat tattttttgca attgttagta 120

atgttaagca tcaaggaaaa taaaacacat cattgcacat tacagccgca aaaaac 176

<210> 28
<211> 241
<212> DNA
<213> Homo sapiens

<400> 28
agagagtaaa gcaagctatt ttgacagcaa cctaataaca gctgtcttct tccacttctt 60

ggctaactca tccccagat agccttcttt tctcttatca attccctggt gcaacaataa 120

taaatgccac acctgatgga gtcattaggc actttcctag tgacaagtgc ctaggacaga 180

ggagaaaaca aagaaacact gacaaccact gaaaactgac atatcaggcc aggcatgtca 240

c 241

<210> 29
<211> 217
<212> DNA
<213> Homo sapiens

<400> 29
gctggagagg tggatgatgtt gctgaataat tgcttttttaa agctggaggg gacttccaag 60

agtctctcat ttaagaaraa aaattaaaga cataattggt aacggttttg actgctgcag 120
 aggcaacact ttgctcaciaa tcctacagat ctacttcacc tgtaactaca attttcctga 180
 agacatagaa gaaaaatcaa ttgttctaata ccatatg 217

<210> 30
 <211> 233
 <212> DNA
 <213> Homo sapiens

<400> 30
 aatccttagca taatgcttcc tgggaaattc tgaaattgat tccatttctg ccgttacaaa 60
 cacacacgaa gttcctagtt cactgggact tcctgatttg ttcttttagc ttgctccttc 120
 tcacctagaa gctctgttta tttctgagca accctggggc ttgtctcata ggacaggatt 180
 tatttatctc atcaaggctg agtgtgcctt aggaagtcata aaacataaaa aga 233

<210> 31
 <211> 228
 <212> DNA
 <213> Homo sapiens

<400> 31
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 gggagcctga ggcattgagaa tcacttgaac ctgggaggtg gaggttgcca tgagccgaga 180
 tcacgccatt gcactacagc cttggcgaca agagtgaaac tccatctg 228

<210> 32
<211> 298
<212> DNA
<213> Homo sapiens

<400> 32
gcttatgatt acaaacatcc ctcatatgaa aatctcagca tttnctggct gctgccttca 60

atcgcttttt ctgaaatagg tatcccttga tgcgactat ttgatttcag ccagtcgttt 120

ctctctggca gtgctccctg caaatgtgtc ctttcaagaa aacaaaacct gcaagtggct 180

tgtaatgtac catgacctta tcatgtgaag gacaaatggc tcttgtgctt attagatagc 240

agatgaactg atgaactgaa ttcttgggtct gaagctttga taaggtcaga tgtctttg 298

<210> 33
<211> 291
<212> DNA
<213> Homo sapiens

<400> 33
acttcgaagg gaaaaagagg aaggaaaagg actgttaata aaataacaaa ggcagcaatc 60

agaatgaacc agagccagga cagcgtaaag gctaggttca cagtgagatg aaagaacctg 120

aaaacaagtt taaaactcaa aagaggatta ttctcaagtt atactacagt gaaaaaacat 180

ggaaaaacac aaaaaggaca ggcaataagg cacaggcata catacaaggc aaattgtaac 240

acaatattta cttgcaaaag agcccacaga gacatgtcaa tgaagtcata g 291

<210> 34
<211> 230

<212> PRT

<213> Homo sapiens

<400> 34

Met Glu Asp Gly Phe Leu Asp Asp Gly Arg Gly Asp Gln Pro Leu His
1 5 10 15

Ser Gly Leu Gly Ser Pro His Cys Phe Ser His Gln Asn Gly Glu Arg
20 25 30

Val Glu Arg Tyr Ser Arg Lys Val Phe Val Gly Gly Leu Pro Pro Asp
35 40 45

Ile Asp Glu Asp Glu Ile Thr Ala Ser Phe Arg Arg Phe Gly Pro Leu
50 55 60

Ile Val Asp Trp Pro His Lys Ala Glu Ser Lys Ser Tyr Phe Pro Pro
65 70 75 80

Lys Gly Tyr Ala Phe Leu Leu Phe Gln Asp Glu Ser Ser Val Gln Ala
85 90 95

Leu Ile Asp Ala Cys Ile Glu Glu Asp Gly Lys Leu Tyr Leu Cys Val
100 105 110

Ser Ser Pro Thr Ile Lys Asp Lys Pro Val Gln Ile Arg Pro Trp Asn
115 120 125

Leu Ser Asp Ser Asp Phe Val Met Asp Gly Ser Gln Pro Leu Asp Pro
130 135 140

Arg Lys Thr Ile Phe Val Gly Gly Val Pro Arg Pro Leu Arg Ala Val
145 150 155 160

Glu Leu Ala Met Val Met Asp Arg Leu Tyr Gly Gly Val Cys Tyr Ala
165 170 175

Gly Ile Asp Thr Asp Pro Glu Leu Lys Tyr Pro Lys Gly Ala Gly Arg
180 185 190

Val Ala Phe Ser Asn Gln Gln Ser Tyr Ile Ala Ala Ile Ser Ala Arg
195 200 205

Phe Val Gln Leu Gln His Gly Glu Ile Asp Lys Arg Val Ser Leu Ile
210 215 220

Leu His Phe Gly Lys Phe
225 230

<210> 35
<211> 143
<212> PRT
<213> Homo sapiens

<400> 35
Met Gly Ser Asp Lys Arg Val Ser Arg Thr Glu Arg Ser Gly Arg Tyr
1 5 10 15

Gly Ser Ile Ile Asp Arg Asp Asp Arg Asp Glu Arg Glu Ser Arg Ser
20 25 30

Arg Arg Arg Asp Ser Asp Tyr Lys Arg Ser Ser Asp Asp Arg Arg Gly
35 40 45

Asp Arg Tyr Asp Asp Tyr Arg Asp Tyr Asp Ser Pro Glu Arg Glu Arg
50 55 60

Glu Arg Arg Asn Ser Asp Arg Ser Glu Asp Gly Tyr His Ser Asp Gly
65 70 75 80

Asp Tyr Gly Glu His Asp Tyr Arg His Asp Ile Ser Asp Glu Arg Glu
85 90 95

Ser Lys Thr Ile Met Leu Arg Gly Leu Pro Ile Thr Ile Thr Glu Ser
100 105 110

Asp Ile Arg Glu Met Met Glu Ser Phe Glu Gly Pro Gln Pro Ala Asp
115 120 125

Val Arg Leu Met Lys Arg Lys Thr Gly Glu Ser Leu Leu Ser Ser
130 135 140

<210> 36
<211> 104
<212> PRT
<213> Homo sapiens

<400> 36
Met Pro His Met Leu Ser Gln Leu Ile Ala Gly Gly Val Ser Thr Ser
1 5 10 15

Cys Val Thr Ala Leu Gly Glu Glu Thr Gly Ala Trp Phe Pro Val Tyr
 20 25 30
 Leu Ser His Ala Ser Ser Pro Phe Ala Asp Leu Val Phe Cys Pro Phe
 35 40 45
 Ala Glu Ile Asn His Ser Gln Glu Tyr Asp Asn Met Arg Gly Pro Val
 50 55 60
 Ser Pro Pro Asn Lys Gln Phe Asn Leu Gly Val Ile Phe Gly Ile Pro
 65 70 75 80
 Asn Asn Cys Arg Phe Pro Thr Asp Asn Lys Ile Thr Glu Lys Gln Leu
 85 90 95
 Leu Gly Asn Val Leu Asn Tyr Pro
 100

<210> 37

<211> 133

<212> PRT

<213> Homo sapiens

<400> 37

Met Asn His Pro Trp His Val Cys Phe Leu Phe Lys Val Leu Arg Tyr
 1 5 10 15
 Tyr Pro Thr Ala Pro Ile Leu Lys Trp Thr His Thr Val Ser Cys Ser
 20 25 30
 Trp Cys Arg Ser Val Leu Arg Glu Val Val Gly Asn Val Ser Leu Ser
 35 40 45
 Glu Asn Phe Thr Ile Ser Ala Phe Cys Pro Glu Leu Thr Pro Phe Pro
 50 55 60
 Asp Gln Gly Thr Ser Thr Met Ile Ser Phe Leu Glu Lys Phe Asn Lys
 65 70 75 80
 Ser Lys Arg Glu Arg Leu Glu Leu Met Leu His Phe Tyr Ser Val Leu
 85 90 95
 Ser Leu Glu Pro Ala Val Ala Glu His Trp Ser Gly Glu Phe Glu Lys
 100 105 110

Trp Lys Val Gly Phe Phe His Pro Leu Lys Arg Glu Asp Gly Phe Phe
 115 120 125

Thr Arg Thr Asp Ile
 130

<210> 38
 <211> 133
 <212> PRT
 <213> Homo sapiens

<400> 38
 Met Asn His Pro Trp His Val Cys Phe Leu Phe Lys Val Leu Arg Tyr
 1 5 10 15

Tyr Pro Thr Ala Pro Ile Leu Lys Trp Thr His Thr Val Ser Cys Ser
 20 25 30

Trp Cys Arg Ser Val Leu Arg Glu Val Val Gly Asn Val Ser Leu Ser
 35 40 45

Glu Asn Phe Thr Ile Ser Ala Phe Cys Pro Glu Leu Thr Pro Phe Pro
 50 55 60

Asp Gln Gly Thr Ser Thr Met Ile Ser Phe Leu Glu Lys Phe Asn Lys
 65 70 75 80

Ser Lys Arg Glu Arg Leu Glu Leu Met Leu His Phe Tyr Ser Val Leu
 85 90 95

Ser Leu Glu Pro Ala Phe Ala Glu His Trp Ser Gly Glu Phe Glu Lys
 100 105 110

Trp Lys Val Gly Phe Phe His Pro Leu Lys Arg Glu Asp Gly Phe Phe
 115 120 125

Thr Arg Thr Asp Ile
 130

<210> 39
 <211> 128
 <212> PRT
 <213> Homo sapiens

<400> 39

Met Asp Ala Val Ala Val Tyr His Gly Lys Ile Ser Arg Glu Thr Gly
1 5 10 15

Glu Lys Leu Leu Leu Ala Thr Gly Leu Asp Gly Ser Tyr Leu Leu Arg
20 25 30

Asp Ser Glu Ser Val Pro Gly Val Tyr Cys Leu Cys Val Leu Tyr His
35 40 45

Gly Tyr Ile Tyr Thr Tyr Arg Val Ser Gln Thr Glu Thr Gly Ser Trp
50 55 60

Ser Ala Glu Thr Ala Pro Gly Val His Lys Arg Tyr Phe Arg Lys Ile
65 70 75 80

Lys Asn Leu Ile Ser Ala Phe Gln Lys Pro Asp Gln Gly Ile Val Ile
85 90 95

Pro Leu Gln Tyr Pro Val Glu Lys Lys Ser Ser Ala Arg Ser Thr Gln
100 105 110

Gly Thr Thr Gly Ile Arg Glu Asp Pro Asp Val Cys Leu Lys Ala Pro
115 120 125

<210> 40

<211> 343

<212> PRT

<213> Homo sapiens

<400> 40

Met Asp Ala Pro Lys Ala Gly Tyr Ala Phe Glu Tyr Leu Ile Glu Thr
1 5 10 15

Leu Asn Asp Ser Ser His Lys Lys Phe Phe Asp Val Ser Lys Leu Gly
20 25 30

Thr Lys Tyr Asp Val Leu Pro Tyr Ser Ile Arg Val Leu Leu Glu Ala
35 40 45

Ala Val Arg Asn Cys Asp Gly Phe Leu Met Lys Lys Glu Asp Val Met
50 55 60

Asn Ile Leu Asp Trp Lys Thr Lys Gln Ser Asn Val Glu Val Pro Phe
65 70 75 80

Phe Pro Ala Arg Val Leu Leu Gln Asp Phe Thr Gly Ile Pro Ala Met
85 90 95
Val Asp Phe Ala Ala Met Arg Glu Ala Val Lys Thr Leu Gly Gly Asp
100 105 110
Pro Glu Lys Val His Pro Ala Cys Pro Thr Asp Leu Thr Val Asp His
115 120 125
Ser Leu Gln Ile Asp Phe Ser Lys Cys Ala Ile Gln Asn Ala Pro Asn
130 135 140
Pro Gly Gly Gly Asp Leu Gln Lys Ala Gly Lys Leu Ser Pro Leu Lys
145 150 155 160
Val Gln Pro Lys Lys Leu Pro Cys Arg Gly Gln Thr Thr Cys Arg Gly
165 170 175
Ser Cys Asp Ser Gly Glu Leu Gly Arg Asn Ser Gly Thr Phe Ser Ser
180 185 190
Gln Ile Glu Asn Thr Pro Ile Leu Cys Pro Phe His Leu Gln Pro Val
195 200 205
Pro Glu Pro Glu Thr Val Leu Lys Asn Gln Glu Val Glu Phe Gly Arg
210 215 220
Asn Arg Glu Arg Leu Gln Phe Phe Lys Trp Ser Ser Arg Val Leu Lys
225 230 235 240
Asn Val Ala Val Ile Pro Pro Gly Thr Gly Met Ala His Gln Ile Asn
245 250 255
Leu Glu Tyr Leu Ser Arg Val Val Phe Glu Glu Lys Asp Leu Leu Phe
260 265 270
Pro Asp Ser Val Val Gly Thr Asp Ser His Ile Thr Met Val Asn Gly
275 280 285
Leu Gly Ile Leu Gly Trp Gly Val Gly Gly Ile Glu Thr Glu Ala Val
290 295 300
Met Leu Gly Leu Pro Val Ser Leu Thr Leu Pro Glu Val Val Gly Cys
305 310 315 320
Glu Leu Thr Gly Ser Ser Asn Pro Phe Val Thr Ser Ile Asp Val Val

325

330

335

Leu Gly Ile Thr Lys Val Ser
340

<210> 41

<211> 305

<212> DNA

<213> Homo sapiens

<400> 41

tcatgaagtg aagccaactg tttagactag aatgttatga gattaaaccc acnnnnnnntt 60

attcatagac ataaaccctc attttaatta gtggatctgg atttttgtca tatgtggaat 120

cataatttaa acaaaatcaa ctaagatgat ccaagttcca cacaactgca cttcaatatt 180

caagtcggtg tgaagatgcc tgactactgc gtcacaagat tctgagctgt cgtaaaaagc 240

ctggctcgtg gtttctatatt atagtgtaca catgttgggt tataatcaca aacctggaac 300

tctgt 305

<210> 42

<211> 256

<212> DNA

<213> Homo sapiens

<400> 42

gaaaccacgg cttacaccta gagacagcat tcagatatag acgggatact tgtgttagtc 60

agttccttta taacaggtga atctctctcc cactgcttca aactgcgtg acaaagccaa 120

ttgggaagca gctttacaaa tgtgacttga cttggggatc ttcttgatac ttgccatgg 180

caaggaacaa gccgcctgaa ctaaagcca ctccatttga ttccacgctt aaagtaacca 240

tgcaaccgac tatagt 256

<210> 43

<211> 244

<212> DNA

<213> Homo sapiens

<400> 43

tactcttcaa ccatgatttt tctctgatgg cctgtgtgaa cagattaatg gtgtccatct 60

aattccttcc ccactggggg aaagcaaatc atcaggccca ttgcaaaaac tgctcttggt 120

tgagcttcct gccttaaadc ataccacag tgaatggcgt ccctttatca ccgctaata 180

ctctgacatc tctctccact cacatgtgag cctcctcagc tctcganaaa caagtengtc 240

tcgg 244

<210> 44

<211> 258

<212> DNA

<213> Homo sapiens

<400> 44

tctcagaaaa ctccagatca aatgagatga gtatggtggn nagggctggc aattagagga 60

tactctccaa tggatgatgaa gggagatgtc tgggggaaat ccagcaggat gttgatttag 120

tatgtacaca gtgagaggat acttgtagag aacctagaat cttctctgaa tgtgacgggc 180

cctcagagat aattgttaac agataagtgg atgattaaat acacttcctc cagtaggcta 240

gatgttaaga cggagatc

258

<210> 45

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 45

gggcttaata ttattcatag atcgag

26

<210> 46

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 46

gttattatac tatcaagtaa cccaac

26

<210> 47

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 47

gtggatctgg atttttgtca tatgt

25

<210> 48

<211> 25

<212> DNA

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<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 48

gtttgtgatt ataaccaac atgtg

25

<210> 49

<211> 25

<212> DNA

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 49

gaaggggaag agacattaaa ttatc

25

<210> 50

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 50

gcttctaaat ctctgagtc actt

24

<210> 51

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 51

gacaatgagt aagaagaaag aggg

24

<210> 52
<211> 24
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<400> 52
gtccagtccc ttggtttatt tgtc

24

<210> 53
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<220>
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<400> 53
ggtacccagt ttcaaattaa catgg

25

<210> 54
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<400> 54
gattcttcaa ctgccaaact tgttc

25

<210> 55
<211> 24
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<213> Artificial Sequence

<220>
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<400> 55
gctgatgctt ttctatctga cttc

24

<210> 56
<211> 22
<212> DNA
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<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 56
gaccaggact gaacagaggt ga

22

<210> 57
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<220>
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<400> 57
gcttatagac catgtttgta gtagg

25

<210> 58
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<400> 58
gtgaacaaat gctaaatcag acatg

25

<210> 59
<211> 22

<212> DNA
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<400> 59
gccacgggtt tcccatatcg aa

22

<210> 60
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<400> 60
gactatactt aggaacctct gcaa

24

<210> 61
<211> 24
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<213> Artificial Sequence

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<400> 61
gttctgctct cagcagattg gtta

24

<210> 62
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<212> DNA
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<400> 62

gccaacatct gaactaaata ctgc

24

<210> 63

<211> 25

<212> DNA

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<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 63

gttcagtga tgttacctag aaaca

25

<210> 64

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 64

ggagtgaaaa ctgtcttggt catc

24

<210> 65

<211> 25

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 65

gtatgacaaa tagtttctgc ctgat

25

<210> 66

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 66

gattaacaaa gatgtacaga ctgag

25

<210> 67

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 67

gagacagcat tcagatatag acgg

24

<210> 68

<211> 22

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 68

gcgtggaatc aaatggagtg gc

22

<210> 69

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 69

gatggcctgt gtgaacagat taat

24

<210> 70
<211> 24
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<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 70
gagagagatg tcagagtcac tagc

24

<210> 71
<211> 24
<212> DNA
<213> Artificial Sequence

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<400> 71
gatccccaca atttcttgat attg

24

<210> 72
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<400> 72
gttcccctaa aataatgtgg taatg

25

<210> 73
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<400> 73
gaggatactc tccaatggtg atg

23

<210> 74
<211> 24
<212> DNA
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<400> 74
gtcttaacat ctagcctact ggag

24

<210> 75
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<220>
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<400> 75
gagaggagcc atgtatacaa acca

24

<210> 76
<211> 26
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<220>
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<400> 76
gcacgcagga tcagatatag taattc

26

<210> 77
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 77
gctgaaacct aagctgaagg aagg

24

<210> 78
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
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<400> 78
gtccctcacc tcagatcaca cc

22

<210> 79
<211> 24
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 79
gctatctacc tggcaggaaa agag

24

<210> 80
<211> 25
<212> DNA
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<400> 80
gagtttctta ctatgatctg gattc

25

<210> 81
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<400> 81
gcaaaatgta ctcagcttca atcac

25

<210> 82
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<400> 82
gtaaatgcag tactgttctg atcc

24

<210> 83
<211> 26
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<400> 83
gaatgcttca ttctcattgt ttaagg

26

<210> 84
<211> 24

<212> DNA
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<400> 84
gtcactagga ttccacagaa cttc

24

<210> 85
<211> 22
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<400> 85
gaggtagggc ttcccttcgc ta

22

<210> 86
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<400> 86
gcataacaag tgacagggtt agtta

25

<210> 87
<211> 22
<212> DNA
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<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 87

ggtgctcctt ccttacactg gt

22

<210> 88

<211> 23

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 88

gactacacat aaacccaccc cag

23

<210> 89

<211> 24

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 89

gggtacagga tttctaagaa gtgg

24

<210> 90

<211> 25

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 90

ggagaaaatt tcagctcatc tgaag

25

<210> 91

<211> 24

<212> DNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 91

gctgaagtta agcattaata cgcc

24

<210> 92

<211> 23

<212> DNA

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 92

gcggctgtaa tgtgcaatga tgt

23

<210> 93

<211> 24

<212> DNA

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 93

gacagcaacc taataacagc tgtc

24

<210> 94

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 94

gtcctaggca cttgtcacta gg

22

<210> 95
<211> 22
<212> DNA
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<400> 95
gaggggactt ccaagagtct ct

22

<210> 96
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<212> DNA
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<400> 96
gtcttcagga aaattgtagt tacag

25

<210> 97
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<400> 97
gttacaaaca cacacgaagt tcct

24

<210> 98
<211> 22
<212> DNA
<213> Artificial Sequence

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<223> Description of Artificial Sequence:Synthetic DNA

<400> 98
gacttcctaa ggcacactca gc

22

<210> 99
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 99
gtttaactac ctctcaggtc atga

24

<210> 100
<211> 22
<212> DNA
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<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 100
gtcgccaagg ctgtagtgca at

22

<210> 101
<211> 24
<212> DNA
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<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 101
gaaataggta tcccttgatg tcga

24

<210> 102
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 102
gaccaagaat tcagttcatc agtt

24

<210> 103
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 103
gaatgaacca gagccaggac ag

22

<210> 104
<211> 22
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<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 104
gccttgatatg tatgcctgtg cc

22

<210> 105
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<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 105
aagagtccac caggccatgg a

21

<210> 106
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<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 106
taccttgtgt acttctagct gag

23

<210> 107
<211> 17
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<220>
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<400> 107
gttttttttt tttttta

17

<210> 108
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<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 108
gttttttttt ttttttg

17

<210> 109
<211> 17

<212> DNA
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<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 109
gtttttttttt ttttttc

17

<210> 110
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<223> Description of Artificial Sequence:Synthetic DNA

<400> 110
cagagtgatg gatatcaa

18

<210> 111
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 111
atgaaagtgc cagtgtgcca tg

22

<210> 112
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Synthetic DNA

<400> 112

cccatcacca tcttccagga gc

22

<210> 113

<211> 26

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic DNA

<400> 113

ttcaccacct tcttgatgtc atcata

26

<210> 114

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic Peptide

<400> 114

Cys	Pro	Leu	Lys	Arg	Glu	Asp	Gly	Phe	Phe	Thr	Arg	Thr	Asp	Ile
1				5					10				15	

<210> 115

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> MOD_RES

<222> (16)

<223> AMIDATION, GluAmide

<400> 115

Cys	Ser	Phe	Leu	Glu	Lys	Phe	Asn	Lys	Ser	Lys	Arg	Glu	Arg	Leu	Xaa
1				5					10					15	

<210> 116

<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<222> (15)
<223> AMIDATION, GlyAmide

<400> 116
Cys Ala Glu His Trp Ser Gly Glu Phe Glu Lys Trp Lys Val Xaa
1 5 10 15

<210> 117
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Synthetic Peptide

<400> 117
Cys Glu Ile Asp Lys Arg Val Ser Leu Ile Leu His Phe Gly Lys Phe
1 5 10 15

<210> 118
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence:Synthetic Peptide

<400> 118
Cys Arg Leu Met Lys Arg Lys Thr Gly Glu Ser Leu Leu Ser Ser
1 5 10 15

<210> 119
<211> 14
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic Peptide

<400> 119

Cys Thr Ser Ile Asp Val Val Leu Gly Ile Thr Lys Val Ser
1 5 10

<210> 120

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<221> MOD_RES

<222> (16)

<223> AMIDATION, LysAmide

<400> 120

Cys Ser Ala Glu Thr Ala Pro Gly Val His Lys Arg Tyr Phe Arg Xaa
1 5 10 15

<210> 121

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence:Synthetic Peptide

<400> 121

Cys Lys Ile Thr Glu Lys Gln Leu Leu Gly Asn Val Leu Asn Tyr Pro
1 5 10 15

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